

• LEARNING-BASED SENSORIMOTOR TRAINING CLIENT HANDOUT •

In Dystonia

Objectives

- Retrain your brain to recover effective and efficient performance by integrating the principles of neuroplasticity, healthy biomechanics, good postural alignment, minimal stress/anxiety, and positive physical and emotional feedback
- Quiet your nervous system
- Improve all of your sensory systems - including somatosensation, proprioception, auditory and vestibular
- Inhibit involuntary contractions of opposing muscle groups
- Recruit the right neurons in movement
- Enhance the ability to turn off muscle contractions once engaged in firing

Progressive Learning Based Treatment

You MUST have full commitment. You must be willing to do repetitive, learning based training at home and at work

1) Prepare the brain: Be positive about recovery!

Increase aerobic exercise and fitness level, eat balanced diet, drink water, decrease caffeine intake. Mindfulness: attend to activities.

Use imagery and mental practice to stop abnormal movements, and quiet the nervous system.

2) Train the brain: Improve sensory input: vestibular, sensorimotor and integrative postural retraining (especially with eyes closed). Decrease muscle tension by using good posture. You must modify the sensory inputs (from your vision, vestibular system, proprioceptive systems, somatosensation, etc) to get better head movements. The therapist may improve sensory input and quiet the over-activity with TENS or inhibitory taping over the over-active muscle. Use tricks and strategies to stop abnormal movements as much as possible. Practice graded movements using different body positions, mirror and/or biofeedback to inhibit unwanted movements. Restore ability to right the head progressively against gravity – start with partial sitting, progress to full sitting, then standing. Slow progression of difficulty/Make training intense: must have neck or limb in normal position more than abnormal position.

3) Treat underlying factors:

Address biomechanical issues including posture, nerve tension, strength and flexibility.

Adapted from Byl, Archer, McKenzie, 2008

BEYOND THE BASICS

Dystonia
EVALUATION -&- TREATMENT

